Chapter 4
Feedback and Measurement

One of the basic tenets of customer service is to ask customers what they want, or you’ll likely get it wrong. This chapter introduces the concepts and procedures that will help your organization develop an effective system to identify customer needs and measure satisfaction.

Why Do I Need Customer Feedback?

Your customers’ ideas can help you provide better environmental and public health protection. By obtaining feedback from your customers, you can measure progress toward your customer satisfaction goals. Ultimately, customer feedback will help you improve the way your organization provides products and services to its customers.

What services do permitting customers usually want? We’ve found that applicants usually seek clear, timely, and fair permits. Communities want permits that protect their environment. Permitting authorities rely on others to supply resources, expertise, guidance, and support in an effective manner. Your customers may have additional, or different, needs.

How do you know if your customers are getting the services they deserve? It has long been a basic tenet of customer service that you must *ask* your customers what they want, or you will likely get it wrong. If you assume you know what your customers want, they may perceive you as arrogant or you may spend resources on program changes that they don’t want or need. Meanwhile, you may not notice a very simple, inexpensive, and straightforward need — because you didn’t ask.

Also, asking your customers what they want promotes your agency’s image as a more customer-focused organization. It shows you care about their opinions and that you are truly interested in serving them better. Also, reaching out to your customers gives them a sense of ownership of the program, generally resulting in more support for decisions reached.

You may even need to revise or expand the standards you set at the beginning of your customer service effort. You may find out the customer service goals you initially set are too high or too low. That is okay — feedback is, by definition, meant to be a dynamic process and the feedback loop is a crucial element of achieving excellence in customer service.

Why Should I Set Customer Service Standards and Goals?

As with any major project, you should set goals to identify where you’re going and how you’ll know when you get there. When you are seeking excellence in customer service, you’ll have to initially make some assumptions about your customers' needs so you can start asking them questions. These assumptions will show up in your initial goals and standards. While EPA has developed four standards for Customer Service in Permitting, as described earlier, they should not be construed as the only right ones. Your organization should set standards that best fit your mission.

You should set quantifiable and measurable goals for each standard. These goals will help you design the feedback and measurement system.

How Do I Design a Feedback and Measurement System?

This toolkit describes three phases for developing and implementing a successful feedback and measurement system. (Additional phases needed to analyze and act on the feedback are presented in Chapter 5.) You can find more detailed information in "*Hearing the Voice of the Customer - Customer Feedback and Customer Satisfaction Measurement Guidelines*," OP-235-B-98-003, November 1998. This document may also be found in the EPA web site at: www.epa.gov/customerservice/guide.htm.

The three development and implementation phases are:

- ✔ Plan the customer feedback project
- ✔ Construct the data collection procedures
- ✔ Conduct data collection

THE PLAN *checklist*

_____ get ready

_____ see what feedback you already have

_____ decide which core questions to ask

_____ decide frequency for customer feedback

_____ define the target customer population

_____ identify services supplied to customers

_____ establish purposes of customer feedback

_____ decide whether to contract out

_____ develop written plan

_____ determine resources needed

_____ obtain agreement to proceed (if needed)

PLAN THE CUSTOMER FEEDBACK PROCEDURE

How Ready Is My Organization for Customer Feedback?

As you begin to plan, consider how ready your organization is for customer feedback by asking these questions:

$ Do staff understand why the organization needs customer feedback?

$ Do staff members and managers sincerely intend to pay attention to customer feedback and act on it?

$ Are key managers committed to taking action based on customer input?

- $ Have staff members directly participated in defining the need for customer feedback and in identifying the approaches to use for obtaining it?

- $ Have managers, employees, and other users of customer feedback information expressed their needs, issues, concerns, and objectives?

- $ Is there managerial and employee buy-in and ownership?

- $ Are there few or no barriers C such as concerns about change, extra work, adverse findings C to using customer feedback successfully?

- $ If there are barriers, are there identified methods to overcome them?

If you answered “yes” to these questions, your organization is clearly ready for customer feedback. If you answered “no” to some questions, you might consider what you can do to prepare your organization to obtain and use customer feedback.

If your organization is not fully ready for customer feedback, you should not necessarily halt your feedback activities. Instead, just understand that you will probably face some challenges in getting the work done, getting managers to pay attention to findings, and assuring customers that your organization is committed to implementing the changes they want. You may need to start slowly, collecting unsolicited feedback and using informal opportunities to gather customer input. You can make some positive changes based on that feedback, and build a case for seeking broader and more formal customer feedback to verify and expand the anecdotal information you gathered.

What Kinds of Customer Feedback Are Already Occurring?

Before proceeding with a new customer feedback activity, check with EPA=s Customer Service Program in the Office of Policy to see whether any similar work has been conducted recently. You also should check with delegated program representatives (for certain customer feedback functions). By obtaining information from other sources, you may avoid unnecessary duplication, save time and money, and make the best use of previously gathered data.

What are the Core Questions I Should Ask of My Customers?

We believe it is important to have some core questions that are always used by those doing customer feedback within an organization. Core questions represent broad levels of understanding and impressions about expectations, organizational responsiveness, and customer satisfaction. By using core questions, we can compare and aggregate customer feedback information, both across the agency and over time.

The following are the core questions that we endorse:

- Overall, how satisfied are you with the way the permitting process was managed?

1	2	3	4	5	6
not at all					*very*

- How courteously did our organization staff treat you?

1	2	3	4	5	6
not at all					*very*

- How satisfied are you with the quality and timeliness of the communications you have received from our organization?

1	2	3	4	5	6
not at all					*very*

- How fully did our organization respond to your needs for guidance, information, or technical support under the permit process?

1	2	3	4	5	6
not at all					*very*

How Often Should We Ask Customers for Feedback?

Many organizations contact their customers once a year to get an overall measure of satisfaction. Other types of feedback, such as follow-up telephone calls or comment cards, provide immediate information at the point of contact. When organizations need targeted customer information, most find it useful to conduct multiple studies each year.

As a rule, a customer service program does not want to overburden its customers, so take care to:

$ Avoid activities that duplicate work conducted

$ Avoid contacting the same customer repeatedly

$ Seek consent from customers to participate in feedback projects, especially those that are lengthy or where customers have been contacted previously.

There is no standard answer to how often you should ask for feedback. The frequency of customer feedback will depend on several factors:

$ Were the findings of previous customer feedback studies positive or negative? If your organization took action in response to concerns customers raised, has there been enough time to see whether those actions have been effective?

$ Considering the issue(s) involved in the feedback activity, how often does it make sense to solicit customers= opinions?

$ Can you distinguish annual versus ongoing information needs?

$ Is there a way to collect feedback during your everyday customer transactions? Is there a way to match feedback with your organization-to-customer transactions? Can you ask customers at the end of a call if the information provided was useful? Is there any follow-up with them later to see if they used the product provided?

$ Has some critical event occurred for which customer feedback would be important? (e.g., was the office reorganized to speed customer service or product delivery?)

$ Do you anticipate program changes that may require surveying customers both before and after the change?

How Long Should Feedback Activity Take?

Obviously, many variables can affect the time it takes to complete a feedback effort. These variables include the type and method of feedback, number of respondents, and the extent to which your organization is prepared to plan and act on the results. Many people, including the customer, will have expectations about how long the effort will last and when results may become available. Therefore, you should carefully plan the schedule of a feedback effort. Figure 4.1 is an example of the timetable for one feedback survey:

Figure 4.1

CUSTOMER FEEDBACK SURVEY -- PROJECT TIMETABLE

DELIVERABLE	TIME FRAME
Project Planning and Design	June (2-3 meetings)
Design Survey Instrument	
- focus groups	6/22 & 6/29
- internal draft of questionnaire	7/7
- 1st draft to survey team	7/10 - 7/12
- markup meeting	7/12
- 2nd draft to survey team	7/17 - 7/20
- revised draft sent to field	7/25
- final version sent for approval	8/4
- final approval from agency	8/7

Data Collection **- field testing** **- revisions (if necessary)** **- phoning**	 **8/14 & 8/15** **8/16 - 8/18** **8/21 - 9/15**
Analysis and Report **- analysis** **- report** **- briefing charts**	 **9/15 - 10/15** **10/17** **10/31**
Process Improvement Workshops **- coordinating committee** **- executive board** **- notes to coordinating committee** **- notes to executive board**	 **11/1 & 11/2** **11/8 & 11/9** **11/16** **11/27**
Performance Standards and Process Improvement Implementation **- action teams**	**start 12/10**

Why Should I Establish Quality Control Procedures?

Developing and applying good internal control procedures helps ensure the quality, reliability, and integrity of information used for decision making. You should apply quality control standards and techniques to data collection, analysis, and reporting of results.

Controls may be as simple as limiting access to raw, customer-specific data, as well as separating the data collection, administrative and presentation duties from the affected action officials. Alternatively, controls can be as thorough as performing independent quality assurance reviews. Internal controls should provide reasonable assurance that your customer feedback objectives will be accomplished reliably and cost-effectively. See Appendix A for a description of specific control standards and techniques that apply to EPA.

Figure 4.2

Checklist
Establishing the Purposes of Customer Feedback

<u>Define the feedback objectives</u>

- What do I want to accomplish with this feedback?

<u>Determine how the findings will be used</u>

- What will we do with the findings?
- Will they be used:

  - as a key business performance indicator?

  - to revise, correct, or improve a process?

Checklist - continued

  - to identify customer needs and expectations?

  - as a management tool for customer relationships?

  - to inform planning, decision making, and resource allocation?

  - to reward, recognize, or compensate employees?

  - to help validate standards, specifications, and measures?

<u>Determine who will use the findings</u>

- Who else is interested in the findings?
- How much time are they able to give to the process?
- How would they prefer to learn about the findings – in briefings, written reports, graphics, action plans, e-mail?

Figure 4.3

Checklist

Developing a Written Plan for the Customer Survey

___purposes of the activity

___quality control procedures

___ways findings will be used

___identification of target group

___methods of data collection

___timing for data collection

___analysis plan (see Chapter 5)

___tools for carrying out feedback activity
- discussion topics
- survey instrument
- database

___anticipated products
- tables and graphs
- interpretive text
- slides
- specific conclusions
- recommended actions

CONSTRUCT DATA COLLECTION PROCEDURES

What Is the "Best" Approach for Assessing Customer Satisfaction?

Your best approach will depend on the kind of product or service you provided, the kinds of customers you served, how many are served, the longevity and frequency of customer-supplier interactions, and what you intend to do with the results. Two very different approaches can produce useful findings:

$ Continuous assessment methods **C** methods to obtain feedback from *the individual customer* at the time of product or service delivery (or shortly afterwards).

$ Periodic survey approaches **C** methods that obtain feedback from *groups of customers* at periodic intervals after service or product delivery. They provide an occasional snapshot of experiences and expectations.

You need multiple inputs from customers to understand their expectations and satisfaction. It is like peeling away layers of an onion – each layer reveals yet another deeper layer. Both approaches can help you assess your organization=s overall accomplishments and areas for improvement.

Continuous Assessment

While this Toolkit focuses on methods for obtaining customer feedback periodically, you also can adopt continuous assessment as a standard method for obtaining customer satisfaction information. Include continuous assessment by:

- enclosing a feedback card with every draft and/or final permit issued
- enclosing a feedback card with every public comment response mailed
- making a follow-up phone call to every customer (or to every fifth, or twelfth, or nth customer) within one or two days of contact

Decide on Data Collection Method

Informal methods for obtaining information from customers clearly produce valuable information. Everyone needs to use these everyday opportunities for customer feedback. Use this information to complement the more systematic forms of gathering feedback discussed earlier.

Formal methods frequently used to gather customer feedback include focus groups; mail-back postcards included with materials you send to your customers; mail surveys; telephone surveys; publication evaluation forms; printed or in-person surveys (possibly including computer-assisted personal interviews or an intercept survey through which you ask every *n*th customer attending a function or visiting a facility to participate). Electronic mail will become an important means for collecting customer feedback as more people gain access to the Internet.

When picking a method, you should consider several factors, such as the types and number of questions you will ask. Your decision also will be affected by available resources, how fast decision makers need to have the information, and how representative the findings need to be. The *response rate* — the number of customers who actually answer questions divided by the number contacted for information — is also an important consideration because it will affect the way you can use findings. A summary of different methods appears in the table on page 4-12.

If you choose a mail or phone survey, you will need an accurate name, address and/or telephone number. At times you=ll need to know which EPA programs or services the customer sought or received, as well as any demographic information available.

Note that several different practices can affect the ratings of various data collection methods:

- Focus groups, telephone and in-person surveys require trained staff to conduct proper interviews and prevent interviewer bias. They can also demonstrate through direct personal contact that the agency takes customer feedback seriously.

- $ Telephone surveys can more readily accommodate differences in language and literacy levels than can mail surveys, but they cannot accommodate lengthy questionnaires or visuals. However, some people do not have a telephone, and many who do will refuse to participate in telephone interviews.

- $ Mail surveys can be longer, since respondents can work at their own pace, but they have the longest response time and may not reach the intended target.

- $ Mail surveys allow no interviewer bias to creep in, but they offer little ability to probe or ask complex questions, and may generate ambiguous answers.

- $ Your advance and follow-up efforts can dramatically improve costs, timeliness, and your ability to generalize results. Mail surveys can follow up with customers who do not respond initially. An advance letter can increase participation and response rates for mail and telephone surveys. Such letters also allay customers' concerns about such matters as: how they were selected, why they have been selected to participate again (if applicable), anonymity, how long it will take them to answer the questions, and how findings will be used. (See the sample advance letter on the following page.)

[on your organization's letterhead]

Mr. John Doe
Alpha, Beta, and Gamma Co., Inc.
555 Main Street
Anywhere, USA 12345

Dear Mr. Doe:

I am writing to let you know that your name has been selected at random to participate in a survey about business owners' experiences with our agency. You are one of a small group of people we are contacting. Your feedback can help shape our future direction.

We at [XXX Agency] will take findings from the survey into consideration as we develop our plans for the next decade. We are committed to incorporating customer viewpoints and recommendations into our strategic planning, budgeting, and decision-making while recognizing the need for balancing sometimes competing and conflicting interests.

I realize that we may have contacted you before to answer similar questions. We are tracking our efforts to respond to customer concerns, so it is very important to hear from you again. You will not be identified personally.

You should receive the survey in the next few days. It will take less than 10 minutes for you to complete. I urge you to consider the questions carefully and let us know how we can better serve you. Meanwhile, if you have any questions, please call 1-800-xxx-xxxx to speak with a staff member on XXX Agency's survey team (or someone at YYY Consulting, the firm conducting the survey for us).

I thank you in advance for your time and consideration.

Sincerely,

Name
Title of highest possible agency person

Comparison of Feedback Methods

Factor	Focus Groups	Mail-back Form*	Mail-out Survey	Telephone Survey	In-person Survey	Continuous (Every nth Customer) **	Electronic via Internet
Cost	moderate	low	moderate	moderate	high	moderate	
Convenience for customer to complete	moderate	high	high	moderate	moderate	moderate	high
Length of survey	up to 2 hours	very short	up to 12 pages	12-15 minutes	up to 1-1/2 hours	mixed	very short
Ability to encourage customer to participate	high	low	moderate	high	high	mixed	low
Ability to provide instructions or explanation to customer	high	low	low	high	high	mixed	low
Requires customer to initiate	no	yes	no	no	no	mixed	yes
Respondent's perception of anonymity	moderate	high	moderate	moderate	moderate	moderate	not anonymous
Types of questions	closed- and open-ended	yes/no	mostly closed-ended	closed- and open-ended	closed- and open-ended	most closed-ended	can be both
Opportunity to probe and ask "why" questions	very high	limited	limited	moderate to high	high	limited	limited
Need for accurate list of telephone numbers or addresses	no	no	yes	yes	yes	yes	no
Allows "branching" and skip patterns***	yes	no	some	yes	some	some	no
Ability to get quick response	moderate	no	moderate	yes	moderate	moderate	high
Response rates	high	low	moderate to high	high	high	moderate	low
Extent of likely bias between customers who choose to participate and those who decline	high	high	some	low	low	mixed	
Ease of data entry	moderate	moderate	moderate	high	moderate	mixed	high
Extent of data clean-up	low	some	moderate	low	moderate	mixed	low
Ability to generalize results	low	low	high	high	moderate to high		low

* Refers to feedback forms or postcards distributed at a point of contact with the customers or included among materials sent to a customer.

** Every nth customer would be contacted using telephone, feedback card or survey form ; therefore "mixed" appears frequently in the table.

*** "Branching" is a particular answer to one question that leads to a series of related questions. For example, if a customer cited a product as especially helpful, a series of questions might try to ascertain what, exactly, about that product led to the customer's opinion; if another customer finds a product especially irrelevant, a different series of questions might be posed. "Skip patterns" refer to instructions about which questions to answer and which to skip, depending on the particular answer given to one question.

The Sample

If the number of customers of interest is relatively small, not more than 50, you could contact each customer to obtain feedback. This is the *census* approach. In many cases, you provide services or products to a large group of customers, perhaps too large for a census approach. In such cases, a *sampling* approach is needed, and two options are possible: (1) a *judgment sample*, in which you consciously select the customers that you will contact from the entire group served, or (2) a *probabilistic sample,* in which customers are picked randomly from the entire group served during the period of interest (e.g., the past year).

In most cases, it is better to rely on the probabilistic approach. Judgment samples may be biased because of the way customers are selected. If a sample is biased, it is impossible to draw inferences about the entire group of customers served. As long as the response rate is high enough, probabilistic samples are not biased, so inferences can be made about the group as a whole.

Determining the Sample Size

If you choose to conduct a mail, telephone, or in-person survey, you will need to decide the number of people selected to participate. To determine this number — the *sample size* — you should consider several factors, such as the total number of customers served, the intended use of the results, available resources, and time.

The larger the percentage sampled, the more certain you can be that the feedback represents the results you would have obtained if you had surveyed every customer. The smaller the percentage sampled, the greater the likelihood that feedback will differ significantly from those in the master list.

The relationship between sample size and accuracy of findings is due to *sampling error,* which indicates the extent to which the sample is different from the entire group under study. In a news article that reports the President's approval rating as 62 percent, plus or minus 5 percent, the "plus-or-minus" value is the sampling error.

To decide the size of the sample, you can either:

- Determine the largest sample size that you can afford and calculate the associated sampling error, or

- Determine the maximum sampling error that is acceptable and then select the sample size that will produce that level of error.

The sampling error can be estimated through a *confidence interval,* which specifies a range of values within which the true measure is found. Typically, survey results rely on a 95 percent confidence interval, but lower levels are acceptable, depending on how you plan to use the findings. Popular media reports rarely stipulate confidence intervals, but they are implied. Again using the President's popularity rating as an example, the unstated premise is that the analyst is 95 percent certain that the President's popularity is between 57 and 67 percent; that is, 62 percent, plus or minus 5 percentage points.

One last thing to consider in determining the sample size is the kinds of comparisons you will make with survey findings. Many times, analysts are interested in comparing ways that different customers react to various services. These comparisons may involve large vs. small businesses, the general public vs. educators, and so forth. If these comparisons are a critical portion of the analysis, you must plan for them in the sample design so that enough of each customer type is surveyed to make the findings meaningful. See Appendix B for additional information on sampling considerations.

Develop the Questions

Checklist for effective questions:

____use short, value-neutral statements or questions
____use simple words
____avoid jargon
____be clear and easy to understand
____arrange questions in logical order
____use appropriate response choices (include all possible answers and minimize overlap among the answers)
____do not use double negatives
____be upbeat and interesting
____write to the appropriate reading level (9th grade or less for general public; several word processing software packages incorporate a feature that determines reading level)
___ use questions pretested in other surveys whenever possible
____leave out the "nice to know" program/product/service questions not vital to success

In choosing questions, you should keep two principles in mind: (1) make sure that the questions and answers address your objectives and (2) set limits on the length of the survey instrument.

Many sources are available to help develop questions for surveys. These include software packages such as Corporate Pulse (which is available to EPA staff through the Customer Service Program), prior surveys sponsored by EPA and other agencies, journal articles, and item banks maintained by some universities and survey organizations. When possible, it is better to use a previously tested and validated question, rather than one newly created for the current survey.

Survey questions are generally of two types: open-ended and closed-ended. In open-ended questions, the customer creates his or her own answers. The following are examples of open-ended questions:

- *Do you have any suggestions for improving service?* [IF YES], *What are they?*

- *How could our organization be more responsive to your concerns?*

- *Could you please describe the most satisfying experience you've had with our organization?*

Closed-ended questions limit the responses a customer can provide. They may include yes/no answers, categories of responses, rank-ordered responses, or scales. The following are examples of each type:

<u>Yes/no</u>

In the past 6 months, have you contacted the XYZ office?

1) yes 2) no

<u>Categories</u>

In what kind of community is your business located? Would you say it's . . .

1) urban 2) suburban 3) rural

<u>Rank order</u>

Of the following items, which 3 are most important to you? Please indicate with a "1" for the most important, a "2" for the next most important, and a "3" for the third most important.

_____ clean air
_____ clean water
_____ hazardous waste disposal
_____ a minimum level of government regulation
_____ lower taxes

<u>Scale</u>

Please rate your satisfaction with the service you received, using a scale of 1 to 6. "6" means you are very satisfied, and "1" means you are very dissatisfied.

1 2 3 4 5 6

With closed-ended questions, it is relatively easy to record and analyze responses, and you will not receive irrelevant or unintelligible responses. However, you risk "missing the boat." To illustrate, suppose you ask the closed-ended questions, "What was the main reason for your visit?," giving several possible answers, and 30 percent of your respondents mark "other." Drawing valid conclusions about why customers visited would be hard. If you decide to use closed-ended questions, pretest them to identify all the likeliest responses to your questions.

In developing closed-ended questions, you should carefully consider the advisability of including response options such as "don't know" and "no opinion." While customers should not be forced into providing responses when they really do not have answers, it is better to find ways to encourage a response than to let customers default to a neutral position. In mail surveys, you can provide this encouragement through instructions; in telephone and in-person surveys, you can encourage responses by *not* offering "don't know" and "no opinion" as response options.

On the other hand, including "not applicable" as a response is important in mail surveys, so that customers are able to indicate this when they have not had a particular experience. In asking questions about a past event, consider giving a "don't remember" option. Keep the survey to a reasonable length by asking only the questions needed to address the issues that prompted your survey; leave out the "nice to know" questions.

Recognize that open-ended questions will provide a richness of data that can complicate analysis. Reducing responses to a few categories that can be coded, entered into a data base, and analyzed can be difficult. It is probably best to use a mix of questions, both closed and open, in most customer feedback questionnaires.

If you are planning an ongoing or periodically repeated survey, identify a few key program goals that are unlikely to change very soon, and focus your questions on them. Develop questions that will indicate how well customers think the goals are being met. These key questions need not be elaborate or profound, but should be very basic. To effectively compare results over time, you need to use essentially the same core questions in your survey on each iteration. You will need to avoid making any major changes to these key questions, whether in wording, scaling, or placement, so be sure to ask the right questions from the beginning.

Make sure your questions are relevant to your customers. Although this may seem obvious, it is important to remember. Be particularly wary of questions that may be interesting to ask, but may only add time and cost while not producing useful information. These questions could be:

- Extraneous questions that do not address the stipulated purposes and objectives of the feedback activity.

- Questions that are subject to misinterpretation. These may have vague words, use unfamiliar jargon, or could be understood differently by different types of customers.

- Double-barreled questions that embed more than one item, such as "On a scale of 1 to 6, please indicate how *clear and useful* the materials are." The customer may have one opinion about clarity and another about usefulness, but is not given an opportunity to distinguish between them.

- Questions that may upset some respondents. Questions that may seem intrusive, such as household income, are best when worded neutrally (such as by asking whether the customer's household income falls above or below a certain level) and placed at the end of the survey.

- Questions on potentially sensitive or offensive matters, especially about cultural, ethnic, gender, and socioeconomic considerations.

- Questions that do not elicit responses pointing to specific remedies.

If you don't ask the right questions in the right way, relatively soon after the service experience, feedback will not be as useful as it might have been. Also, remember that to compare results over time you should avoid making major changes to key questions, whether in wording, scale, or order in the questionnaire.

There is no single correct scale to use. However**:**

- Whenever possible, the same scale should be used throughout a given questionnaire to help ensure that different responses within a questionnaire can be compared validly.

- Different survey efforts within an organization should use the same scale. To this end, for national consistency, we would recommend that when using the core questions described above, you consistently use the same scale of one to six (1 - 6), whenever possible.

Construct the Questionnaire

No matter what method you use to collect data, all questionnaires follow a similar format:

- Introduction — sets forth the purpose of the survey and guides the customer through the questions

- Experience — establishes the customer's ability to answer various parts of the questionnaire

- Measurement — asks the person surveyed to characterize his or her experiences, needs and desires as your customer

- Customer information — gathers data that will be used to classify respondents

Survey questions should be presented in a logical sequence. Many survey experts believe that the first question on the survey, more than any other, will determine whether your customer completes or discards the questionnaire. Starting with a fairly simple question is a good idea because it suggests that completing the survey will be neither difficult nor time-consuming. It is also advisable to ask a fairly interesting question to evoke interest.

The next set of questions should focus on matters that the customer is most likely to judge as useful or salient. This continues the process of drawing the customer in so that he or she becomes engaged with thinking about the questions being asked and becomes invested in completing the survey. Grouping questions together that share common themes makes sense because the customer then focuses on that area of inquiry. Group questions with similar response options. For example, questions that have yes/no responses should be together and questions that have scale responses should be together.

The order of questions should also mirror the thought processes that customers are likely to follow. For example, questions about experiences with on-site inspections should precede questions about suggestions to improve those inspections.

The final set of questions should center on those most likely to be sensitive or offensive. These may include questions about personal characteristics (race, age, income) and unsuitable behaviors.

The final page of the booklet should not have any survey questions. Instead, it should invite the customer's comments or suggestions about anything raised in the survey or other issues and concerns. It should also indicate the address for returning the questionnaire (in case the survey gets separated from the reply envelope) and, when possible, a toll-free number set up exclusively to receive survey inquiries.

Mail Surveys. The mail survey has to do everything you would do if you were with the customer. It has to be visually appealing, have a pleasant tone, and be clear while being concise and to the point. The survey instrument is under the direct control of the customer. Its physical look will affect the customer's willingness to respond; the clarity of the instructions and questions will affect the customer's ability to interpret their meaning.

Single page questionnaires and comment cards should be attractive and easy to read. Longer questionnaires should be printed in booklet form, on 11" x 17" paper that is folded in half and stapled in the middle to produce a standard 8 ½" x 11" page. The cover should be visually appealing and use a logo or other graphic design to interest the customer; no questions should appear on the cover. Use of color ink and high-quality paper will add only minor costs to the survey, but can substantially improve response rates and reduce the cost of follow-up correspondence and telephoning by staff or contractors. The cover should give the title of the survey activity and indicate who is conducting it. Note the Social Security Administration uses brightly colored paper, desk-top publishing to allow more flexibility in design, and larger print to accommodate the needs of its elderly and disabled customers**.**

The methods used to construct the questionnaire are different, depending on the mode of data collection. In the next section we present methods for constructing questionnaires for focus groups, mail surveys, and telephone surveys — the most frequently used forms of data collection in periodic surveys.

Focus Groups. As knowledge about customer surveys has expanded and entered the public domain, more and more people claim to be conducting "focus groups." It is important to distinguish between focus groups based on scientific procedures and understanding of human interactions and casual discussions among people who share a common interest or concern. Both approaches provide potentially useful information, but analysts should recognize the difference.

The key instrument for a focus group is the Moderator's Guide. This is a series of questions, probes, and discussion topics arrayed in a logical order. The moderator uses the Guide to elicit opinions and experiences from participants, and to ensure that discussions stay focused as much as possible on the critical issues.
Typically, a Moderator's Guide is organized as follows:

Introductions by moderator and participants

Review of ground rules, such as

- You have been asked here to offer your views and opinions; everyone's participation is important; the conversation does not need to flow through the moderator, although the moderator will manage the group

- Speak one at a time (avoid side conversations)

- Note video taping, audio taping, and observers (as applicable)

- There are no right or wrong answers; consensus not required

- Okay to be critical; if you don't like something, say so

- All answers are confidential, so speak your mind

Brief explanation of the focus group purpose and introduction of the topic

Definitions

Questions, probes, discussion topics

Closing and thanks

Telephone Surveys. Because customers have no questionnaire in front of them during a telephone survey, visual appeal is not an issue. However, ordering, clarity, and conciseness of questions are important. It's also important to place the call at appropriate times (e.g., not at dinner time). Additionally, the interviewer acts as an intermediary between the customer and the questions posed. With this in mind, the following principles apply to telephone surveys:

- The introduction the customer hears will probably determine whether the customer hangs up. The introduction should be concise, state the purpose of the call, estimate its length, and assure confidentiality. This is a sample:

  Hello, my name is [fill in], *and I'm with the XXX Agency* [or *YYY Consulting]. We're* *conducting a survey of people who have received materials from the XXX Agency to learn about their experiences and opinions. Let me assure you that this is not a sales call, and that we will keep all information about you and your responses private. We will use the information you provide only to help improve XXX Agency's services. The survey will take less than 15 minutes to complete and is purely voluntary. Is this a convenient time, or should I call you back later?*

- Because customers will rely on verbal cues and instructions, rather than written ones, questions should have a limited number of responses (about three or four).

- Each question should be relatively short.

- Avoid questions that ask the customer to look up information or check with others.

- Avoid use of leading questions.

- Be sure to read the questions aloud to others to see if they make sense. Remember, what works for the written word does not always work for the spoken.

- Complex *skip patterns* and *branching* are easily accommodated through computer-assisted telephone interviewing (CATI) systems. *Skip patterns* occur when a particular answer to one question means the respondent is *not* asked certain questions that would otherwise follow; *branching* occurs when a particular answer to one question leads to a series of questions customized to that particular answer.

- Rank-order questions are subject to error in telephone interviews in a way that they are not for mail or in-person surveys. Rather than asking a customer to rank-order a list of, say, eight items, it is better to ask that person questions in a series of pairs ("Which is more important to you, X or Y?"). Alternatively, you can break up the list into a series of separate scaled items ("On a scale of 1 to 6, where 1 is extremely important and 6 is not at all important, how do you feel about X?")

- When changing subjects, telephone surveys should cue the customer with transitional language. To accomplish this shift, use statements such as, "Now, I'd like to turn to your experiences with . . ."

- Instructions for the interviewer must be perfectly clear, and the same format should be used throughout the survey. For example, interviewer instructions are typically enclosed by brackets, in all capital letters.

- For a sizable telephone survey (of say, more than 50 people), use of computer-assisted telephone interviewing (CATI) should be considered. For large studies, CATI will be more cost-effective and produce more reliable information.

Pretest

A pretest is a small-scale trial of the instrument and data collection methods. Conducting a pretest is extremely important because the results will allow you to refine the instrument and methods before the comprehensive data collection activity begins. It may seem that a pretest is unnecessary if a survey has been carefully researched and designed. However, even the best plans cannot anticipate all real-world circumstances.

Results from a pretest can tell the analyst:

- whether the flow of questions is logical and orderly
- whether questions seem relevant and appropriate to the customers
- if customers were able to easily understand and respond to questions
- if response categories are adequate
- whether questions truly reflect the issue that is intended to be measured

A pretest is helpful for cost projections, and also provides information about actual burden (that is, the amount of time to complete the survey). This information is essential for Office of Management & Budget (OMB) clearance (required for federal agencies, their contractors and cooperative agreement partners performing surveys of direct benefit to the sponsoring agency). A pretest that includes more than nine people who are not federal employees also requires OMB clearance.

One of the best ways to conduct a pretest is to randomly select individuals from the target group, have them complete the survey, and then conduct a focus group session to review their opinions. If, for example, you intend to conduct a telephone survey, you should recruit customers, bring them to a central location where they can be interviewed by telephone, then meet as a group to go over the draft questionnaire and their experiences in answering the questions. Pretest participants should not be selected for the actual survey.

Contingency for Non-Response

Occasionally, regardless of planning, there will be times when response rates are simply too low for you to make inferences and recommend action. In these cases, it is important to have a contingency plan for non-response. The plan will need to include the additional steps you may need to boost the level of responses. Some potential steps:

- ***Reminder Calls or Postcards*** — If you did not include these steps in the original survey plan, you should consider them if the response is low. If you did include them in the original plan, it may be advantageous for you to repeat them.

- ***Follow-Up Contact with Non-Respondents*** — You may need to make telephone calls or other types of personal contact to non-respondents to identify the reasons for their non-response. Find out if they understood the intent of the survey and the questions, if the questions were relevant and if there were specific factors that persuaded them not to respond.

- ***Improve Contact Information* —** It may be that many addresses or phone numbers of the target group are incorrect or out-of-date. Updating this information would very likely improve the response rate. Places to check include the Internet, credit bureaus, and business directories.

- ***Revise Survey Instrument* —** Some questions may make respondents feel uncomfortable, so you may need to revise the instrument. NOTE: If you change the survey instrument significantly, you may not be able to compare the results received before the change with those received after the change. You will need to carefully consider the trade off of response rate vs. data validity.

Some of these steps may require a great deal of effort, time, and money. The group or individual in charge of the survey will need to carefully consider the various options. If the response rate remains too low, you may need to wait for a better time and customer base, or to rely on direct conversations with customers.

OMB Clearance (EPA Only)

Under the Paperwork Reduction Act of 1995, the U.S. Office of Management and Budget must approve any federally-sponsored collection of information that asks the same question of more than nine non-federal respondents. Typically referred to as "OMB Clearance," the process is an exacting one and demands strict adherence to OMB requirements. For example, if a customer feedback activity is subject to OMB clearance, the cover of the data collection instrument must contain standard language and the date on which the clearance expires.

EPA has obtained OMB approval of a generic Information Collection Request (ICR) to conduct customer satisfaction work. Under this authority, the clearance process is streamlined and the time for clearance is reduced from as long as 6 months to between 10 and 15 days. This generic ICR is available only for strictly voluntary collections of opinions from customers who have experience with the existing product or service.

Appendix C explains the streamlined process and provides several examples. You may request the fact sheet as a separate electronic document from Patricia Bonner, Director of EPA's Customer Service Program (Mail Code 2161). EPA offices may also send her survey instruments for quick review to ensure that questions are properly worded to address customer satisfaction issues. In some cases, another information collection request may be more appropriate to use than the generic clearance mechanism.

Proposed EPA survey packages should be sent for final review to Barbara Willis of the Regulatory Information Division at EPA Headquarters (Mail Code 2137). She will check the package for compliance with OMB regulations regarding the generic clearance and review the burden placed on the public, state officials, tribes, and other non-federal government customers. She will forward to

OMB all survey instruments and the required clearance package.

See Appendix C for more information about specific procedures to follow, forms to complete, and general information about EPA Customer Feedback OMB Clearance. EPA personnel listed below may be able to provide additional information:

Barbara Willis	**Pat Bonner**
202-260-9453	**202-260-0599**
202-260-9322 (fax)	**202-260-4968 (fax)**
willis.barbara@epamail.epa.gov	**bonner.patricia@epamail.epa.gov**

Model Survey Instruments

Appendix D contains three model surveys prepared by the workgroup that you may use as is, or modify as desired. The three customer groups targeted are the permit applicants, citizens, and the delegated authorities. Please note, while these are similar to previously developed permitting surveys with OMB clearance, those approvals have expired. EPA offices must re-obtain OMB clearance to use them. These approvals would be available under the above described streamlined process.

Additional Resources

The EPA Customer Service Program collects copies of survey instruments, reports, and resulting plans. These materials are a resource for other EPA offices and staff who want to learn more about their customers.

CONDUCT DATA COLLECTION

No matter what data collection methods you choose, you need adequate planning, training, quality control, and supervisory practices to ensure that the information collected is:

- timely
- accurate
- efficient
- parsimonious
- reliable
- valid
- cogent

Focus Groups

A focus group project typically involves several steps, as discussed below.

To recruit participants, you will need to compose *an effective recruitment script*. Use this tool to create dialogue between the person recruiting participants and the candidate, and to qualify potential participants, considering factors such as age, socioeconomic status, and race/ethnicity. Then you will invite individuals who meet requirements to participate in the group. You should recruit about twelve *qualified participants* for each focus group. Allowing for last-minute change of plans and illness, the moderator should expect nine will attend.

Several practices can maximize the efficiency of the recruitment process:

- Well before the group meets, mail a letter to participants that confirms the date, time, and location of the group and states whether the respondents will be paid for participating. The letter thanks the participants, gives directions to the focus group facility (including a map) and repeats the general objectives of the group.

- Also, you may decide to provide *transportation* to the focus group facility for those who need it.

- On the day of the focus group (or the previous day, if the group is scheduled for the morning), make a *follow-up telephone call* to the participants to remind them to attend.

Running a successful focus group also requires:

- arranging for focus group facilities
- providing video and audio taping equipment or people assigned as recorders
- providing a video hookup between the room where the focus group will meet and the room where you (or others) will observe the focus group (if this is part of the design)

- coordinating participants' schedules

During the focus group, it is a good idea to use both a moderator and an assistant to conduct the session. The moderator will pose questions to elicit candid opinions from the participants, keep the discussion moving, cover all topics in the discussion guide, recognize when participants bring up valuable new information, and steer the discussion in that direction if warranted. The assistant supports the moderator as needed, takes notes, and handles logistics.

Mail Surveys

In setting up data collection procedures for a mail survey, a good database is important. The database should contain, for each customer, a unique identification number, the customer's characteristics relevant for the sample selection (such as geographic location, size of business, or date of last contact with your organization), name and address, mail-out date(s), and the date the response is received. This database is a tracking system.

A mail survey typically includes several mailings, each of which experts call a "wave." Send out each wave on the same date:

- If you use an advance letter, mail all of them to customers on the same day.

- About a week later, mail the first questionnaire to all customers. Attach a label with the unique identification number to each questionnaire. A cover letter should refer to the advance letter, ask for cooperation, and (when possible) provide a toll-free number for customers with questions. The package should also contain a prepaid, pre-addressed envelope for returning the completed survey.

- As completed questionnaires come in, record them in the tracking system. As undeliverable questionnaires come back (e.g., the customer has moved and left no forwarding address or the address is incorrect), note this in the tracking system.

- About three weeks after mailing the first questionnaire, send out the second copy to all those who have not yet responded. A cover letter should note the importance of the study and ask customers to respond. The second copy of the questionnaire should be a different color from the first version. This distinguishes between the two copies, sends a signal to customers, and aids efforts to track responses.

The following often help improve response rates:

- the advance letter (if used) should be on official letterhead, with a signature or title that is meaningful to the customer

- any signed correspondence should use a real signature, rather than a rubber stamp (scanning in the signature can work well for many letters)

- use a “live” stamp (if possible), rather than metered or prepaid postage, to send out the survey

- use “address correction requested” to get information on customers whose surveys cannot be delivered, then use the corrected information in the next mail-out

- use a large enough envelope so that the survey booklet does not have to be folded

- establish, when possible, a toll-free number for the duration of the data collection period, and encourage customers to call with questions or comments

- allow respondents to fax back the completed survey

- if the budget permits, send out a third mailing via certified mail or using an overnight delivery service (this is a last resort and may produce only minimal results)

Data from mail surveys must be key-entered or scanned. It is usually most cost-efficient to wait until you have a sizable batch of completed surveys before beginning data entry procedures. Be sure to do a periodic quality check to uncover data entry errors.

Telephone Surveys

Whether using computer-assisted telephone interviewing technology (CATI) or a traditional paper-based technique, you must train telephone interviewers specifically on the study’s questionnaire and data collection procedures. You should cover the following topics during interviewer training sessions:

- **Background and scope of the survey**. A project leader gives interviewers general information about the background and scope of the project. She/he explains the types of information to be collected and how that information will be used.

- **Review of the questionnaire**. A person responsible for data collection goes through the questionnaire and leads an item-by-item discussion.

- **Dealing with uncooperative respondents**. Experienced staff lead discussions about ways to start off the interview right, enlist cooperation, build rapport, and minimize break-offs and non-responses. The interviewers will also review strategies for ways to manage challenging situations.

- **Answering customers’ questions**. Some frequent questions:

    - How was I selected?
    - What is the survey about?
    - Who is conducting it?
    - Who wants to know these answers?

    - How will the information be used?
    - How long will this take?
    - Will I be identified?
    - How do I know you are not some con?
- **Quality control procedures**. Project leaders monitor such matters as posing questions accurately, tone, courtesy, responsiveness to customers' concerns throughout the survey, and reviewing these procedures with interviewers. Telephone interviews for any sizable study are usually conducted using Computer-Assisted Telephone Interviewing (CATI) technology. CATI systems:

    - greatly reduce the possibility of mistakes

    - ensure accurate recording of the survey response

    - instantly establish a tracking system and a record of each call

    - provide significant improvements in quality control and efficiency, and allow complex branching and skip patterns

Electronic Feedback

As access to the Internet spreads, electronic communication will become an important method for gathering customer input. You can easily collect feedback by asking Web page visitors a few questions, inviting grantees to complete comment forms and submit them electronically, and through on-line discussions in "chat rooms."

E-mail surveys are one of the fastest and least intrusive means for gathering customer feedback. Up to 50 percent of the responses are received within 24 hours. They are also cheaper to conduct since you pay no interviewers, or printing and distribution costs. In addition, since e-mail is generally not routed through others, the survey will get to the intended individual. However, respondents are not anonymous.